LITE-ON SEMICONDUCTOR

GBL2005 thru GBL206

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE **- 50 to 600** Volts
FORWARD CURRENT **- 2.0** Amperes

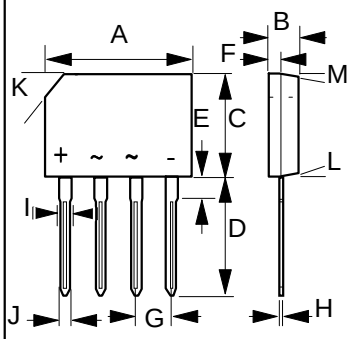
FEATURES

- Rating to 600V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E95060

MECHANICAL DATA

- Polarity : As marked on body
- Weight : 0.05 ounces, 1.52 grams
- Mounting position : Any

GBL



GBL		
DIM.	MIN.	MAX.
A	20.2	20.8
B	3.30	3.70
C	10.70	11.30
D	17.50	18.00
E	2.30	2.70
F	0.80	1.20
G	4.83	5.33
H	0.40	0.60
I	1.95	2.35
J	1.02	1.27
K	3.2 x 45°	
L	-	5°
M	-	5°
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	GBL2005	GBL201	GBL202	GBL204	GBL206	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current @T_C=120℃ with Heatsink / without Heatsink	$I_{(AV)}$	2.0 / 1.5					A
Peak Forward Surge Current 8.3ms single half sine-wave @ @T_A=25℃	I_{FSM}	120					A
Maximum forward Voltage at 1.0A DC	V_F	0.95					V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J=25℃ / @T_J=125℃	I_R	5 / 500					uA
I^2t Rating for fusing (t < 8.3ms)	I^2t	60					A^2S
Typical Junction Capactiance per element (Notice1)	C_J	40					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	10					˚C/W
Operating Temperature Range	T_J	-55 to +150					℃
Storage Temperature Range	T_{STG}	-55 to +150					˚C

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Unit Mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

FIG.1 - FORWARD CURRENT DERATING CURVE

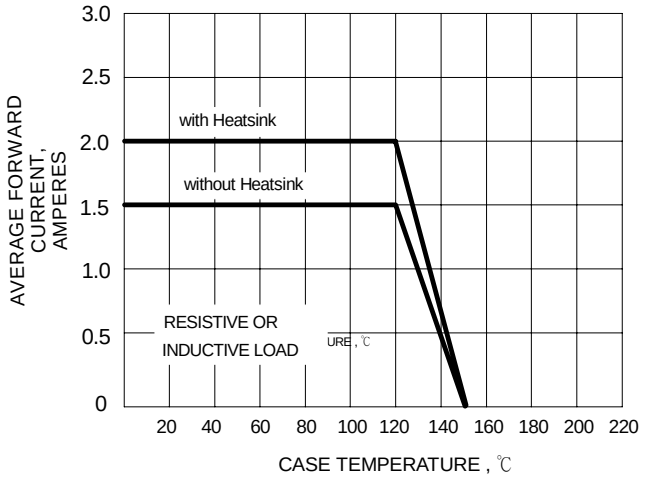


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

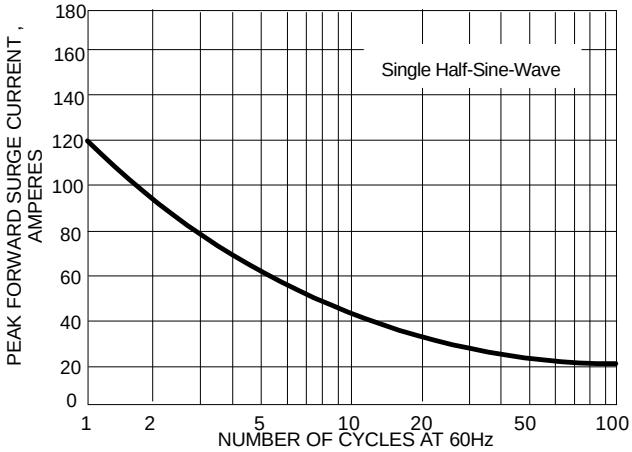


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

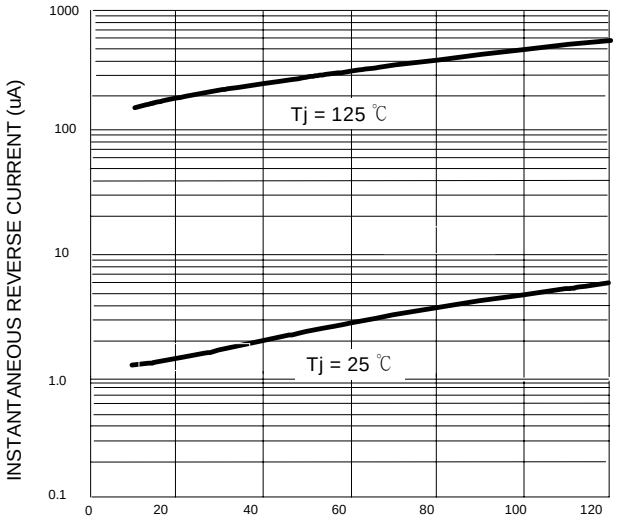


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

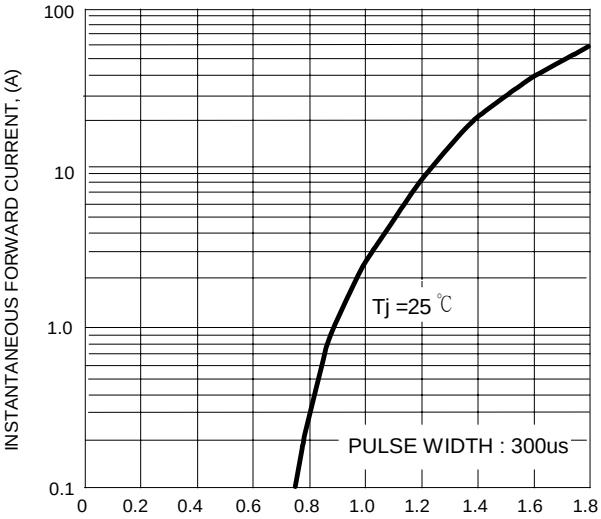


FIG.5 - TYPICAL JUNCTION CAPACITANCE